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09/899,591	07/05/2001	Gregory S. Marczak		4021

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WARNER NORCROSS & JUDD LLP  
900 FIFTH THIRD CENTER  
111 LYON STREET, N.W.  
GRAND RAPIDS, MI 49503-2487

EXAMINER

CULBERT, ROBERTS P

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 01/25/2005

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 09/899,591  
Filing Date: July 05, 2001  
Appellant(s): MARCZAK ET AL.

Gregory P. Bondarenko  
For Appellant

EXAMINER'S ANSWER

**MAILED**  
JAN 25 2005  
**GROUP 1700**

This is in response to the appeal brief filed 11/26/04.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

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**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

4,624,752	ARROWSMITH et al.	11-1986
4,235,682	SCHNEEBERGER et al.	11-1980
4,215,194	SHEPHERD	7-1980
4,398,994	BECKETT	8-1983
3,671,333	MOSIER	6-1972
4,013,498	FRANTZEN et al.	3-1977
3,898,095	BERDAN et al.	8-1975

D.J. Arrowsmith, D.A. Moth, S.P. Rose "The Enhancement of Adhesive Joint Strength by Extending the Surface of Anodized Aluminum" Int. J. Adhesion and Adhesives, Vol. 12 No. 2, April 1992.

**(10) Grounds of Rejection**

The appellant's statement of the ground(s) of rejection to be reviewed on appeal is correct. These rejections are set forth in a prior Office Action, mailed on 9/30/04.

**(11) Response to Argument**

Appellant has argued (Page 8, Line 12 – Page 10, Line 5) that there is no support for the combination of the Arrowsmith references with Schneeberger because Schneeberger teaches sealing an anodized layer which is soft, environmentally unstable, and prone to corrosion whereas Arrowsmith

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teaches an anodized layer that is corrosion and hydration resistant. Appellant concludes that there is no reason to seal the anodized layer of Arrowsmith since it is already corrosion resistant and stable.

The Appellant is incorrect. Although the anodized surfaces of Arrowsmith are corrosion resistant as stated by appellant, so are the anodized surfaces of Schneeberger (Col. 1, Lines 11-16).

Schneeberger teaches that the anodized oxide layer is resistant to corrosion, not prone to corrosion as argued by appellant. Corrosion resistance is a property of anodized aluminum resulting from the oxide layer formation. The primary purpose of the sealant in Schneeberger is to provide *improvement* in corrosion resistance and to trap colorant in the pores of the anodized layer to provide a decorative finish. (Col. 1, Lines 33-43) Appellant has suggested that the anodized layer of Schneeberger is a different "soft" anodized aluminum, however there is no evidentiary support for this statement. Appellant has provided no evidence or a convincing line of reasoning to suggest that the anodized layer of Schneeberger is any different than the anodized layer of Arrowsmith. In fact, both anodic layers are formed in sulfuric acid ( $\text{H}_2\text{SO}_4$ ) to the same thickness (20 $\mu\text{m}$ ) under very similar conditions (time, temperature and current density). See the Arrowsmith publication section entitled "Experimental Procedure", and Schneeberger (Col. 3, Lines 17-30)

Appellant has argued (Page 10, Line 6 – Page 11, Line 5) that the combination of the anodized layer of the Arrowsmith references with the sealing process of Schneeberger would result in an anodic layer completely closed off and sealed over by the Schneeberger velvet sealing layer. Appellant concludes that one would not be motivated to seal the layer of Arrowsmith since the etching process would be unable to etch the outermost anodic layer.

The Appellant is incorrect. First, the velvet sealing layer referred to by applicant is typically removed (Col. 1, Lines 52-54) and therefore would not be "sealed over" as argued by appellant. Second, the cited velvet sealing deposit is an undesirable feature of sealing methods *prior to the invention of Schneeberger*, and is a feature that is overcome by the sealing method of Schneeberger. See (Col. 2, Lines 35-41)

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Appellant has argued (Page 7, Lines 5-10, and Page 11, Line 6 – Page 12, Line 6) that there is no motivation to modify the method of Arrowsmith by using a roller instead of dipping to apply the etching solution. In support of this statement, Appellant suggests that the Arrowsmith patent teaches directly against any other type of treatment besides controlled dipping because of the unique conditions that must be carefully selected for such treatment”

The appellant is incorrect. Although Arrowsmith does teach that the processing parameters must be carefully controlled to produce the required surface layer topography, there is no indication that the processing parameters such as time, temperature and concentration are specific to the dipping process or that it is the dipping technique that determines the success of the etching process. Moreover, all of the process parameters (time temperature and concentration) overlap between Arrowsmith and the alleged invention of Appellant. No evidence has been provided to suggest that the processing parameters would be significantly different for dipping, spraying or rolling application techniques. Furthermore, Arrowsmith indicates that the process conditions and method of treatment may vary as understood by those skilled in the art to produce the bonding surface. (Col. 5, Lines 15-24) As one skilled in the art appreciates, and as recited in Shepherd, rolling, dipping and spraying are suitable equivalent methods of applying an etching composition to a metallic web such as sheet metal.

Appellant has argued (Page 7, Line 13 – Page 8, Line 6) that the Examiners have merely identified a desired result (applying an etching composition to one side of an aluminum sheet or web) and then asserted that Appellants solution is obvious in view of that desired result without any reasoning.

Appellant, in the above arguments, recites the reasoning and reference (Beckett) used to reject the limitation of *advancing the web over a roller submersed in an etching composition*. This reference and reasoning is not used to reject the limitations of *applying an etching composition to one side of an aluminum sheet or web*. In the above arguments, Appellant has not addressed the reasoning supporting applying the method of the Arrowsmith references to commercial aluminum (a continuous web) or the application to one side of a web as recited in the rejections. For example, the background of Applicant's specification recites that it is conventional to manufacture anodized aluminum in two-sided sheet form.

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Arrowsmith indicates that the disclosed process is suitable for commercial manufacturing. (Col. 4, Lines 15-18) It is noted that Appellant has not challenged the conclusion that it would have been obvious to one skilled in the art at the time of invention to apply the method of the Arrowsmith references to a continuous web of aluminum in order to provide commercially produced aluminum with a surface that will strongly adhere to coatings or adhesives.

Appellant has argued (Page 12, Lines 16-21) that the Official Notice taken by the examiner merely identifies a need for a bonding surface and that prior to the invention of Appellant no one was able to resolve.

The argument is not persuasive because applicant has not produced any evidence of long-felt need, or failure of others, for example, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the cited references, they would still be unable to solve the problem.

Appellant has argued (Page 13, Lines 1-14) that the Examiner has improperly relied upon Official Notice without evidentiary support.

However, the Official Notice of facts taken by the examiner was made in the three previous Office Actions without being traversed and has only now been traversed in the Appeal Brief. Therefore, Appellant has not seasonably challenged the Official Notice of facts made by the Examiner. See MPEP 2144.04.

Appellant has argued (Page 13, Line 15 – Page 14, Line 20) that Arrowsmith specifically teaches against treatment of only one side of an aluminum web or sheet. In support of this statement Appellant asserts that since Arrowsmith teaches a “controlled dip”, that all surfaces must be contacted. Appellant notes that Arrowsmith teaches application to localized areas but concludes that the localized treatment is performed by dipping the entire part including the localized part in the treatment solution.

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Applicant is incorrect. First a "controlled dip" does not mean that all surfaces are contacted. In fact, the term "controlled" suggests the opposite; that only the portion that is desired to have a bonding surface is immersed, such as the bonded joints in aircraft sheet metal, as recited in Arrowsmith (Col. 1, Lines 25-40)

Second, the localized hand-application described by Arrowsmith cannot be a process in which all areas are contacted. If all areas were contacted, there could be no localized treatment (i.e. treatment in a local area) Further, hand application refers to a brushing, rolling, spraying and other known hand application treatments. There is no reason for Arrowsmith to teach that these other methods are *also* suitable unless they are different than the dipping method applied to the samples.

Appellant has argued (Page 15, Lines 1-19) that Berdan fails to teach preventing contact between the etching solution and a second side of the aluminum foil by administering a fluid over the second side of the aluminum foil.

However, Berdan does in fact teach the limitation as claimed. As admitted by appellant in the argument, Berdan teaches inhibiting etching by applying a fluid against the foil surface. The application of the fluid inhibits (prevents) etching of the second side by preventing the etchant from contacting the second side. The fact that Berdan teaches etching both sides of the foil prior to teaching the method of preventing etching does not mean that Berdan does not teach the method of preventing etching. It is the later step of Berdan, in which the protecting fluid is used, that forms the basis of the rejection.

Appellant has argued (Page 16 Line 1 – Page 17, Line 4) that Frantzen fails to teach preventing contact between a metal foil and an etching solution by placing a shield adjacent a second side (surface) of the metal foil while contacting the solution with the first side of the foil. In support of this argument, Appellant points out that since holes are formed in the material in a later step, Frantzen teaches contacting both sides of the metal foil with the etching solution.

However, Frantzen does teach preventing contact between a metal foil and an etching solution by placing a shield adjacent a second side (surface) of the metal foil while contacting the solution with the

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first side of the foil. The fact that Frantzen also teaches a subsequent step of etching both sides does not mean that Frantzen does not teach preventing contact between a metal web and an etching solution using a shield in the first step. It is the first step of Frantzen, in which the protective shield is used, that forms the basis of the rejection.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Roberts Culbert




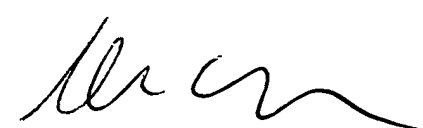
January 15, 2005

Conferees

Gregory Mills

Glenn Caldarola

WARNER NORCROSS & JUDD LLP  
900 FIFTH THIRD CENTER  
111 LYON STREET, N.W.  
GRAND RAPIDS, MI 49503-2487

  
  
Glenn Caldarola  
Supervisory Patent Examiner  
Inventive Unit 1700